

are available now except for a few slokas from their works quoted by later commentators.

Kashyapa : was the son of sage Marichi and was considered as one of the Prajapathis in view of his being the the father of Daityas, Danavas and Adityas through the thirteen daughters of Daksha whom he married.²

We come across many Kashyapas in ancient times. In Mahabharata there is mention of a brahmin Kashyapa Dhanvanthari, proficient in Toxicology encountering Takshaka the serpant king who was on his mission to bite king Parikshit.

The next person of this name is found as a celebrated authority on diseases of children. Historians place him in 6th century B.C. as an earlier contemporary of Buddha.

A scholarly treatise on diseases of children known as *Kashyapa Samhita* has been published by Rajguru Pt. Hemaraja Sharma from Nepal. The work bears a second name also as *Vridhha Jeevakeeya Tantra* and there is still uncertainty about its original author and his date. The book is found in incomplete form having 10 chapters in Sustrastana (18 to 28) 2 in Vimana, 5 in Shareera,³ in Indriya, 18 in Chikitsa 8 in Siddhi, 9 in Kalpa and 23 in Khilasthana. Number of missing words, lines and verses are innumerable.

¹ M. Bh. Shantiparva 200/19.

² M. Bh. and Shatapatha Brahmana.

³ M. Bh. Adiparva. 42.

Notwithstanding these lacunae, the perusal of its subject matter reveals great wisdom, specialisation of knowledge of the branch, both in theoretical and practical aspects. It stands superbly comparable to Charaka and Sushutra samhitas and has thus rightly been regarded as the pioneer work on paediatrics. It is immensely worthy of study by the present day paediatricians who can surely gather new ideas from it.

Vridha Jeevaka : was the son of sage Ruchika of the Bhrigu geniology and a disciple of Kashyapa. The extant Kashyapa Samhita bears his name also as *Vridha Jeevakeeya Tantra*. It was the practice of the disciples in ancient times to write treatises embodying the teachings of their masters and designating them in the name of their preceptors. This might be one such case.

An interesting narration is found in the text itself to his getting the epithet 'Vridha.' Even after the completion of his studies and compiling a treatise on the subject, he was of an young age-of only 5 years. Both he and his work were refused by the elite as juvenile. To overcome this trouble which was a hinderance to the propogation of this knowledge, the boy dipped himself in Ganges at a place called Kanakhala and came out of the water with grey hairs and old age. Since then he came to be called as Vridha Jivaka. Fanciful might be this story but the task he devoted himself to has been very successful. The unequivocal style, depth of knowledge and understanding of the principles enumerated by his master have all been faithfully incorporated in the work.

He lived along with Kashyapa, the paediatrician probably in the early part of 6th century B.C. this being supported by the absence of any reference to Buddha or his religion in the Kashyapa Samhita.

Vyadi : A physician of repute and a grammarian flourished after Panini, is mentioned as an authority on chemistry of gems. He is placed in the 6th century B.C. by historians.

During the 6th and 5th centuries B.C. we come across many authorities on different branches of medicine. References are available in the form of quotations from their works but none of these are available now in full.

The following are some of them.

- 1 Alambayana—Toxicology,
- 2 Adyayana— „
- 3 Kharanada—Internal medicine.
- 4 Karala Bhatta—Ophthalmology.
- 5 Chakshusyena— „

III Historical Personages

The dawn of 'historical' period in India, even though counted from the 7th Century B.C. historical facts are found to be defenete only after the 5th Centutry B.C. A great turmoil took place in India commencing with the 6th Century B.C., to continue with full vigour for nearly ten centuries. Vedic religion got a strong jolt with protestant teachings of Mahavira and Goutama. Politically India had to face many foreign invasions. Vedic social order underwent great change in view of religious and political impact. Ancient knowledge lost much of its speculative philosophy and got sound logical theories and techniques. Importance was given to such sciences which would give ready and immediate help to face trying situations. Artha shastra (polity) Shastravidya (Armoury, warfare) Ayurveda (medicine) deserve special mention among them.

Gowlama the Buddha : (406 ?-486 B.C.) is the tower- ing personality of the 5th century B C. After attaining enlightenment, he preached a simple from of right conduct which greatly appealed to the common man. He upheld moral virtues and extolled kindness and service to the suffering. His 'dhamma' gave importance to nursing and treating the sick for- bidding only the use of knife in treatment.

Buddha is credited with many miraculous cures. In Sravasti, there is a stupa built on the spot where Buddha is said to have washed the hands and feet of a sick monk and cured him. Another park where Buddha restored the sight of five hundred brigands

whose eyes had been put out by King Prasenajita. In the *Kangyur* in Tibet there is said to be a treatise on medicine in Sanskrit the 'sutra', by Sakyamuni based on Sushruta Ayurveda Shastra.¹

Mahavagga : the Buddhist canonical literature has a section (VI khandaka) entirely devoted to medical matters. These are in the form of sanctions by Buddha for the collection, preservation and use of various drugs and medicines, regimen to be followed in regard to methods of therapeutics other than surgical operations, acceptable diets to monks and other household regulations. Buddhist monks studied Ayurveda to treat the sick and monasteries served as inpatient hospitals. With the avoidance of knife, Buddhism virtually gave a death blow to surgery in India.

Bhikshu Atreya : Was the reputed teacher of Jivaka the famous physician of the Buddha. His name appears among the Rishis mentioned in Charaka Samhita. There is a mention of a certain Atreya as professor of medicine at the famous Takshashila University and most of the scholars identify him as Bhikshu Atreya. Thus he may be placed in 7th century B.C.

Atri Samhita : the book ascribed to him is not available now. Many verses from this treatise are quoted by all later commentators. There are reasons to believe that it existed up to 8th century A.D.

Jeevaka : (6th Century B.C.) was the well known physician to the Buddha. It is said he was born to

¹ History of Ind. Medicine Vol III, Pp 672, G.N Mukhyapadhyaya

king Bimbisara by a low caste woman. He studied the science of medicine for seven years at the famous University of Takshashila from a renowned physician by name Bhikshu Athreya. He travelled all over Magadha and the neighbouring kingdoms for a long time practising medicine and finally settled as the court physician of King Bimbisara and his son Ajatashatru. Ajatashatru ordained to him the treatment of Lord Buddha and his disciples.

Buddhist literature in India, Tibet and China abound in miraculous cures of Jivaka and his medical knowledge. Jivaka was extraordinarily intelligent and exhibited great skill in treatment of diseases. Atreya was full of admiration towards this disciple and had his superiority proved by innumerable encounters. Jivaka is said to have effected wonderful cures in dropsy, eye diseases, tumours of various types (a tumour on the head of King Bimbisara himself was removed by this skilled physician) swelling of the glands and even performed cranial operations. He had prepared a medicated flower for the use of Buddha which, when smelt, would act as a purgative. He had a surname Kumarabachcha, to which Buddhist records allude a meaning 'restored by Kumara' an incident relating to his birth, but scholars entitled for opinion take the word to mean a specialist in paediatrics, (*kumara bhritya*).¹

¹ As regards his birth he is said to be an illegitimate son of prince Abhaya and grandson of King Bimbisara according to one version while according to another, he is an illegitimate son of king Bimbisara himself, and so a younger brother of prince Abhaya.

(Continued on next page)

Jeevaka finally embraced Buddhism and lived for a few years after the death of Buddha.

Kashyapa II : A contemporary of Lord Buddha and Jivaka. He is also referred to in the Bower Mss as skilful in childrens' diseases. Many formulae are attributed to him.

Two other authorities on paediatrics *Parvathaka* and *Bhadra* are mentioned by Dalhanacharya in his commentary on Sushruta samhita.² Whereabouts of these persons are not known at present.

Charaka : Agnivesha Samhita written by Agnivesha embodying the teachings of Punarvasu Atreya is now available not in its original name but in the name of its redactor the celebrated Charaka.

The name Charaka, as we shall see, has been used in ancient literature of India to mean the adherents of the branch of a Veda, the teacher of a kind of acrobatic dance, a glutton and so forth, varying in its application of the particular sense of the verb 'char' out of the many it connotes. We have the example of the school of Krishna Yajurveda whose adherents were known as Charakas.³

The boy was forsaken by the mother and prince Abhaya brought him up in the royal palace and so he is called komarabhakka (kumara posapita). The etymology of the term is fanciful as the title komarobhritya (pali: komara bhacca) or children's doctor which clearly indicates him as having been particularly skillful in paediatrics is derived from one of the eight divisions of the science of medicine-Kumarabhritya and it really means 'master of the Kumarabhritya Science.'

—History of Indian Medicine Vol. III p. 681,

G. N. Mukyopadhyaya,

² Su. utt. 1/5 teeka.

³ Vide Charaka Samhita—Jamnagar Edn. Vol I-p. 82-88.

Naishadha charita uses the term Charaka to mean a spy. It seems also to have been an honorific term indicating the profession of the peripatetic teacher. The teacher of religion and philosophy called himself as parivrajaka.¹ Similarly a teacher of secular wisdom and particularly of medicine who went about disseminating his skill and theories called himself Charaka.²

It is not possible to decide with any degree of precision, the time, parentage etc., of the Charaka referred to here, when and where he lived and redacted the work, whether it was the personal name of the author or of a school to which he belonged or a title assumed by him or conferred on him by his contemporaries—are all matters of speculation. There is absolute lack of information regarding the parentage, place and time of birth or achievements of Charaka except a bare mention of his name at the colophon of every chapter. Dridhabala calls him as highly intelligent³ one and Vagbhata refers to him indirectly as a Rishi.⁴ Pauranic tradition recognises Charaka as an incarnation of Sesha the serpent God.⁵ With the field thus open for the exercise of fertile fancy, several theories have been current regarding the time and identity of this famous redactor.

¹ Charaka Samhita—English Translation Jamnagar Edn. Vol. I P. 77.

² Ibid : P. 79.

³ Bhava Prakash 1/1

⁴ Cha sid. 12/37.

⁵ Ash. Hri. utta. 40/58.

The theories current on this subject are that i) Charaka and Patanjali, the grammarian are identical ii) Charaka was the court physician of king Kanishka. The former theory is based on the misunderstanding of the salutary verses on Sesha the serpent God composed by Bhoja, Vigyana Bhikshu, Chakrapani and others.¹ A careful analysis of the Mahabhasya of Patanjali and Charaka Samhita can confirm the distinctness of these two persons vividly.

The second view that Charaka was the court physician of Kanishka the Indoscythian king, is based on the finding of a mere name 'Charaka' in the Chinese tripitika. 'There are many adverse factors in conflict with the fact that Charaka the court physician to Kanishka was the author of this work. Kanishka's reign is associated with names like Nagarjuna, Aswaghosha, Vasumitra and Buddhist

- ^{1 a)} शब्दानामनुशासने विदधता पातञ्जले कुर्वता ।
वृत्तिराजमृगाङ्गसंज्ञकमपि व्यातन्वता वैद्यके ॥
वाक्चेतोवपुषां मलः फणिभृतामत्रेव येनोद्धृतः ।
तस्यश्रीचरणाङ्गमल नृपते वाचो जयन्त्युज्ज्वलाः ॥

—Bhoja.

- b) योगेनचित्तस्य पदेन वाचां मलं शरीरस्यच वैद्यकेन ।
योपाकरोत्तं प्रवरं मुनीनां पतञ्जलिं प्राञ्जलिरानतोस्मि ॥

—Vigyana bhikshu in Yogavartika.

- c) पातञ्जलमहाभाष्यचरकप्रतिसंस्कृतैः ।
मनोवाक्कायदोषणां हर्त्रेऽहिपतये नमः ॥

—Chakrapani in Ayurveda deepika.

influence was still predominant in the court... There is no evidence in the contents of the work to warrant this view. As his name indicates, he is more likely to have been a free and independent scholar, not under the patronage of any prince, but a roaming scholar, teacher and healer.¹

We may however accept the view of Bhavamishra who states that Seshha the serpent god took birth as Charaka and redacted the treatises written by the disciples of Atreya.²

Until any of these views is confirmed by further researches, let us content ourselves to assume that the redactor of Agnivesha Samhita must have belonged to that period when Buddhism was in its wane and Vedic tradition was again on the rise. Thus he may be placed between the 3rd and 2nd centuries B.C., a period of greatest spiritual and intellectual upheaval in India when the neglected and worn out texts were gathered again, systematised, restored and supplemented and Charaka as the personal or assumed name of the great renovator of this science from its neglected condition.³

We have previously noted the excellence of Charaka Samhita as a treatise on internal medicine. It attained such a popularity in later centuries that many great scholars have written commentaries on

¹ Cha. Samhita Jamnagar Edn. p. 95. ² Bhava Prakasa 1/1-

³ Ibid : p. 95-96.

it.¹ Of these, the only commentary available in its entirety is that of Chakrapanidatta (11th century). Translations into Arabic and Persian languages also have been done as early as 8th century A.D. The first English translation was made in 1920 by K.J. A.C. Kavirathna of Calcutta and a more encyclopaedic translation of this great classic has been brought out by Sri Gulab Kunverba Ayurvedic Society, Jamnagar in 1949.

Patanjali : In ancient Indian literature, we come across this revered name as the author of 1) Mahabhashya—a commentary on Vyakarana sutras of Panini; 2) the Yoga Sutras, the aphorisms of Yoga school of philosophy, 3) Loha sastra, a treatise on metallurgy and 4) as the redactor or commentator of Charaka Samhita.

There is uncertainty among scholars as to the identity, authorship and date of these Patanjalis as also to the number of individuals of this name. Puranic tradition asserts Patanjali as an incarnation of Sesha the serpent god. This traditional belief by later commentators like Bhoja, Chakrapani and others has led to more confusion of mistaken identity. Some authorities ascribe the mastery over all these varied branches to one single individual while others

¹ Commentators of Charaka Samhita are: 1) Patanjali, 2) Ishanadeva, 3) Harichandra, 4) Vyapyachandra, 5) Vakula, 6) Acharya Bhimadatta, 7) Bhishak Iswarasena, 8) Naradatta, 9) Jinadasa, 10) Jejjata, 11) Gunaakara, 12) Chakrapani, 13) Shivadasasen, 14) Narasimha Kaviraja, 15) Acharya Swamikumara, 16) Gangadhara Roy and 17) Jogendranatha sen.

refer to at least three different persons of the same name. The latter view is more convincing and has gained wide support.

Patanjali I : is identified as the grammarian who wrote the great commentary on Panini, wherein he gives his name as Gonikaputra and his province as Gonarda now in Kashmir. Internal and external evidences show that he was a contemporary of King. Pushyamitra (185-149 B.C.) founder of the Sunga dynasty and acquainted with the existence of Maurya Empire under Chandragupta. His date is approximately taken as 185 B.C.

Patanjali II : is the author of Yogasutras. Referring to him Prof. Das Gupta says that 'Vachaspati and Vigyanabhikshu the two great commentators of Vyasa Bhashya agree with us in holding that Patanjali was not the founder of the Yoga System but an editor...The systematic manner in which the first three chapters of the Yogasutras are written by way of definitions and classifications, shows that the materials were already in existence and that Patanjali only systematised them. His date is fixed as not earlier than 147 B.C.'

Patanjali III : According to Prof. Das Gupta, there was another Patanjali who wrote the Patanjali Tantra (Loha shastra) and who flourished after Nagarjuna, probably within 300-400 A. D. We can assume with some degree of probability that it is with reference to this person that Chakrapani and

¹ History of Indian Philosophy by Prof. Das Gupta, Vol I, p. 229.

others have made the confusion of identifying him with the author of Mahabhashya. It is this Patanjali who wrote a commentary on Charaka Samhita.¹ This commentary is not available now. We may assume, however that he might be the author of other treatises on medicine viz., *Vata Skandha* and *Siddhanta Saravali*, which bear the name of Patanjali².

Nagarjuna : is the name referred to three great scientists of ancient India. 1) the Buddhist monk Nagarjuna who was also an alchemist, 2) Siddha Nagarjuna, the metallurgist and 3) Bhadanta Nagarjuna. There is difference of opinion among scholars regarding the identity, date and works of the former two, while those of the last person are more or less definite.

Nagarjuna I or Bhikshu Nagarjuna : The most acceptable date assigned to him is between 1st Century B.C. and 2nd century A.D. It is said that he was born under an Arjuna tree and Nagas or serpents instructed him with scientific knowledge; hence the name Nagarjuna. Buddhist legends record that a rich brahmin of Vidarbha who had no issues for a long time saw in his dream that a boy would be born to him if he entertained 100 brahmins. He did accordingly and begot a son. Astrologers predicted that the child would not live more than a week and his life could be prolonged to seven years by entertaining

¹ History of Indian Philosophy by Prof. Das Gupta, Vol I p. 229

² Trien. cat. of Mss. 1916-19 quoted. G N. Mukhopadhyaya.

100 bhikshus. This was also done. When the boy reached the age of seven, Mahabodhisatwa Avalokiteswara Khasarpana appeared in his dream and advised him to go to Nalanda in pursuit of study. The boy set out in right earnest to the great University and became a disciple of Acharya Sarahabhadra. In due time, he became proficient in all branches of knowledge and got initiated to Buddhism. At that time, the Buddhist Sangha was very much disorganised with theologicians fighting on tenets of their religion and rituals. This sad state of affairs of the followers of the great Master pained Nagarjuna very much. He strived hard for years to resuscitate the glory of the Dhamma, amended the holy scriptures to fit in the society of the day. This new system became popular by the name Mahayana and Nagarjuna its founder was accredited as a Bodhisatwa.¹

After a strenuous life of an evangelist, he retired to south India and set up a vihara at Srisaï'a hills in Andhradesha. He undertook the pursuit of alchemy in this secluded place and achieved great success. His fame spread far and wide and scholars went on a pilgrimage to his place, became his disciples and settled down at Srisailam. Yagnasri Satakarni, the 23rd Satavahana king, who was ruling that kingdom became greatly attracted by Nagarjuna and took him as his preceptor and friend. He embraced Buddhism and spent lavishly to build viharas. Monastries built by him as the recluse for the monks called

¹ History of Indian Medicine, G. N. Mukhyopodhyaya.

Nagarjuni Caves are found at Ajanta and round about Srisaila hills. It is said that when the royal treasury became empty by lavish expenditure, Nagarjuna made it plentiful with gold prepared through the alchemical process. 'That he was one of the earliest Indian alchemists and that the credit of having invented the process of distillation, sublimation, calcination, colouring and alloying of metals, extraction of copper from pyrites and use of metallic oxides in medicine is only due to the venerable Nagarjuna—is admitted on all hands. He is also accredited with having introduced Kajjali or black sulphide of mercury into medicine.'¹

Nagarjuna wrote several books—both religious and scientific. Among his books on alchemy and metallurgy, *Rasarathnakara* is the best known. It is in the form of a conversation between him, King Shalivahana (another name of Shatavahana kings) and Rathnaghosha another scholar on the subject. It propounds Rasavada or alchemical way of attaining emancipation.

Dalhana, a commentator of Sushruta samhita says that Nagarjuna redacted the original Samhita and added the 'Uttara Tantra' to it—making it as is available today. By this it may well be presumed, that Nagarjuna possessed great knowledge of Ayurveda also. Apart from the above, a few more works³

¹ History of Hindu Chemistry Vol. 1,—P. C. Ray.

² Dalhana—Su : Sutra : 1-3

³ Lohasastra, Rasendra Chintamani, Arogya Manjari, Yogasara Rasendramangala and Ratishastra.

bear the name of Nagarjuna but the authorship is still to be decided.

Nagarjuna II or Siddha Nagarjuna : In about 600 A D., there lived in karnataka, a scholar named Nagarjuna. Jaina literature alludes him as the nephew (sister's son) of Pujiyapada, the famous Jain philosopher-physician. Nagarjuna was educated by Pujiyapada himself in his early days. Though born as a jain, it is said that Nagarjuna was impressed by Buddhism and adopted it as his creed and became a Bhikshu. He set out from his country, travelled all over India, Nepal and Tibet as a pilgrim-preacher of Buddhism. He stayed for a longtime in Tibet, as the head of a monastery and wrote many books on his religion. Later on, he came down to Srishaila hills hollowed by the glory of Nagarjuna Bodhisatva, and took up to the pursuit of Rasayana, the alchemical way of attaining moksha. He was rewarded with various other siddhis (attainments) and came to be known as Siddha Nagarjuna. Perhaps, it was this Nagarjuna that Alberuni the Persian traveller has referred to as having lived hundred years before our time.

He advanced the science of alchemy by writing many books on the subject. *Rasakachaputam*, *Kaksha-puta Tantra* or *Siddhu Ghamunda* bear the name of Siddha Nagarjuna. However, scholars opine that a few more books might have been written by the same person.

Nagarjuna III or Bhadanta Nagarjuna : is known to us as the author of *Ras vaisheshika Sutra*. The word Bhadanta, which means a person having shining white

teeth was a common appellation to Buddhist monks of ancient India who were forbidden from chewing betel leaves. K. Shankara Menon in his scholarly introduction to the *Rasavaisheshika Sutra* has convincingly argued that Bhadanta Nagarjuna was a Buddhist monk of Kerala, most probably of nair community and he possessed exceptional scholarship in sanskrit and Ayurveda. In view of the absence of any reference to Vagbhata in his book and also on the basis of a commentary by one of his disciples Narasimha, it is assumed that Bhadanta Nagarjuna was anterior to Vagbhata and that his date may be fixed at the early part of the 7th century A.D.¹

Rasa vaisheshika Sutra deals with one of the fundamental theories of Ayurveda viz., the Shadrasas—the six tastes. The origin of rasas, their nature, the mutual relations subsisting among the dravyas, rasas and bhutas, combination of rasas, their modifications and effects on doshas and dhatus are all lucidly expounded in this book. It is written mainly after the model of Badarayana's Brahmasutras. The first chapter contains 171 sutras explaining health and disease, influence of food, exercise, and climate etc., on the body. The second chapter, having 123 sutras deals with existence and non-existence of dravyas, their nature and properties. The third has 119 sutras given to exposition of rasas in all their details while the fourth with 73 sutras describes actions like emesis, purgation etc. Examples are given to amplify the truth.

¹ English introduction to *Rasavaisheshika Sutra*—K. Shankara Menon.

of the statements. The book is a very valuable one and it is all the more great as it is the first of its kind.

An erudite sanskrit commentary on this book has been written by Narasimha probably a disciple of Nagarjuna himself.¹ His date has been taken to be somewhere between the 7th and 10th centuries A.D.

Shalihotra :—was a veterinary surgeon. His father's name is said to be Hayaghosha who is identified with the famous Aswaghosha the Buddhist scholar of Kanishka's court. He is said to have lived in salatur the birth place of the famed grammarian Panini. He is also described as a Brahman ascetic who had his hermitage in champaka forest in Himalayas.

There is uncertainty about his date but most scholars place him towards the end of 1st century A.D.

Salihotra Samhita, his treatise deals with science of medicine for the horses (Aswayurveda). He wrote this at the request of Indra and expounded the science to Sushruta, his son not to be mistaken with Sushruta the pupil of Divodasa and son of Viswamitra. The book enjoyed great popularity and was translated into many languages in later times.

Palakapya :—is another notable name in veterinary medicine of ancient India. He is said to be the son of samagayanakhya muni. He was invited by King Romapada of champa (capital of Anga) to expound the science of medicine for elephants.

He is assigned the same period as that of Shalihotra i.e. 1st or 2nd century A.D.

¹ The book, along with this commentary has been published by the Govt of Travancore.

Palakapya Samhita or *Hastyayurveda* is a voluminous work on elephants describing in detail their diseases and treatment both medical and surgical.

Kapilabala : (about 3rd Century A.D.) was the father of Dridhabala, the redactor of Charaka Samhitha. Indu, the commentator of Ashtanga sangraha calls him Acharya Kailabala, signifying his greatness and fame.

Dridhabala :—son of Kapilabala was a native of a settlement called Panchanadapura which, most of the scholars are apt to locate in Kashmir. 'The negative evidence of any reference to Dridhabala or his work in Nayanithaka (Bower Mss) which was composed in the early part of the 4th Century provides the upper limit to Dridhabala's period and hence we can put Dridhabala fairly some where between the end of 3rd Century and the beginning of 4th Century A D. Dridhabala informs us that during his time itself. Agnive-a tantra as redacted by Charaka was not available in full—17 chapters out of 39 in Chikitsasthana and Kalpa and Siddhistanas each with 14 chapters—having been lost. Dridhabala reconstructed these portions thus bringing the Samhita faithfully to completion. Of the 30 chapters in Chikitsasthana, which 13 are to be ascribed to Charaka and which 17 to Dridhabala is still a matter of dispute and a most convincing argument has been elaborated in the Jamnagar edition of Charaka Samhita.

A deep debt of gratitude is truly owed to Dridhabala for reconstructing the non-available portion of a great classic of Indian medicine

Bower Manuscript : This invaluable piece of medical literature of India has an interesting history of its own. Two turks, residents of Kuchar, in eastern Turkistan thinking that a big treasure was hidden underground beneath the Stoop near the *Mongi.oi-Qum Tura* dug it out in Feb., 1890. Instead of a treasure, they found an old manuscript written on birch bark. The discoverers took the manuscript to Maj. Gen. H. Bower, who happened to be there at the time. He immediately sensed its high value and bought it from them. In the absence of any name of the work or its author found in it, it is known to day as the '*Bower Manuscript*'. The credit of editing this manuscript with erudition goes to the great orientalist Rudolf Hoernle, who accomplished this task in about 7 years and published the book in 1897.

The manuscript written on birch bark is in the form of an Indian pothi, each leaf separate from the other, but tied together with a string passing through the holes of the leaves, 51 in number. The entire manuscript is not a single unit, but is a collection of 7 distinctly separate manuscripts, perhaps by different writers. Rudolf Hornle states : 'From the script it is clear that the entire work has not been done by any one person, but by 4 such men...part 1, 2 and 3 by writer no. 1, parts 5 and 7 by writer No. 2, part 4 by the 3rd and part 6 by the 4th writer. These writers were Buddhist bhikshus from India except the author of the 4th part who is presumed to have been a native of either Turkistan or China....All the four

writers were living in the monastery of Kuchar, the head of which was most probably Yashomitra.'

As already mentioned, the manuscript is not dated but Dr. Hornle, on basis of paleographic researches has assigned 350-475 A.D. as its date. It may be stated here that Samudragupta was ruling in India at that time and his empire covered a major portion of Turkistan and this was a period of great intellectual and political activity in India.

The first part of the manuscript opens with *Lasuna Kalpa* (treatment with garlic), then follow the direction regarding the dietetics and the importance of digestion. There is also a section on *Rasayana*, *Vajeekarana*, *Aschotana*, *Mukhalepa*, *Anjana*, hair remedies and cough mixtures.

The second part which is called *Navanithaka*—the cream, is a book of prescriptions covering almost the whole range of internal medicines in all their various forms.

The third part is similar to part second. The 4th and 5th parts deal with the art of fortune telling. The last two parts, the 6th and 7th are full of charms and invocations intended to cure snake bites and as a protection against many evils.

This entire manuscript has been published in recent years under the title *Navaneetaka* and is considered as a valuable piece of medical literature of India.

Simhagupta : was a reputed physician of Sindh, having earned the title *Vaidyapati*. He was the son of *Vagbhata I* and had a son, also named *Vagbhata*.

Vagbhata: We come across many Vagbhata¹ in ancient Indian literature of whom we are concerned here with only the authors of three great books i.e., *Asthanga Sangraha*, *Ashtanga Hridaya* and *Rasaratna Samuchaya*. Very little personal narrative is available in these books and this has led to different views about the identity of the author, his date, nativity etc. There are two main schools of thought on this subject.

1) Indologists led by Rudolf Hoernle² opine that *Ashtanga Sangraha* and *Ashtanga Hridaya* are the works of two different persons of the same name who may be designated as Vagbhata I and II respectively; and that Vagbhata I is the author of *Rasaratna samuchaya* also.

2) Almost all Ayurvedic scholars³ maintain that *Asthanga Sangraha* and *Asthanga Hridaya* are by one and the same person as can be gathered from the opinion of the earlier commentators,⁴ and the author of *Rasaratna samuchaya* is a different name sake

¹ Vagbhata—Minister of Malavendra, son of Deveshwara and author of *Kavikalpalata* 2) son of Nemi Kumara-Jaina author of *Chandanusasana*, *Alankara Tilaka* etc., 3) son of Soma, jaina author of *Sringara Tilaka* etc., 4) author of *Neminirvanakavya* 5) author of *Laghu Jataka* 6) author of *Vagbhata Kosha* 7) author of *Prakrita pingala sutra* 8) author of *Ash. Sang.* 9) author of *Ash. Hri* 10) author of *Rasaratna samuchaya*.

—Ash. Hri Upodhaghata; Harishastry paradkar.

² Rudolf Hoernle. Sir P. C. Ray, P. K. Gode and others.

³ Gananth sen, Yadavaji Acharya, Harishastry Paradkar and others.

⁴ Arunadatta, Indu, Bhattara harichandra.

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Regarding the first school, it may be pointed out that designating the author of Ash. Sang. as Vagbhata I is untenable as the author himself says that his grand father was also Vagbhata¹. Hence we have to take the author of Ash. Sang. as Vagbhata II. Also the internal evidences are totally disagreeable to presume that Rasaratna samuchaya and Ash. Hri are by the same author.

Further, at the end of Ashtanga Sangraha the author has composed a verse giving his parentage, while a similar one is conspicuously absent in Ash. Hri. In Ash. Hri., Uttarastana Chap. 40 verse 80 the word 'separately' (वृत्तमेव) is significant as it conveys the view that this book is a second work by the same person.² With these observations we may safely conclude that the author of Ash. San. and Ash. Hri. is one and the same person and he is to be called as Vagbhata II; and the author of Rasaratnasamuchaya as Vagbhata III.

As regards the date of Vagbhata those who have taken two personalities have assigned Ist cent B.C. to Vagbhata I the author of Ash. Sang. Now their distinctness being set aside we shall have to fix the date of Vagbhata II afresh. Bhattara harichandra (5th cent. A.D.) the earliest known commentator of Charaka was an elder contemporary of Vagbhata and Varahamihira (5th cent A.D.) the celebrated astronomer has borrowed a verse from Vagbhata, of course

¹ भिषग्बरो वाग्भट इत्यभून्मे पितामहो नामधरोऽस्मि यस्य ।

Ash. Sang. uttar/40.

² Ash. Hri Utta 40/80

with slight alterations.¹ Hence early part of 4th cent A.D. may be accepted as the date of vagbhata II.

The religion to which Vagbhata belonged is also disputed. Some hold the view that he was a devout Hindu following the Vedic religion,² some others that he was a Buddhist³ and still others as a Jain⁴. All find enough material to support their views. The former two views have gained much importance. In this context we have to bear in mind the truth of the statement that 'every book is a mirror of its age'. A salient feature of the literature of India belonging to the period between the first and the fourth centuries A.D. is that the books of new religions like Buddhism and Jainism borrowed much from Vedic religion, while the other way round did not happen. In the beginning the vedic scholars strictly guarded their religious and scientific literature against even the terminology of new religions, not to say of their ideas and gospels. This did not continue long and in course of time Hindu religion took those new religions also into its fold. It was Buddhism that advocated the 'middle mean' to take the good from both sides for greater benefit. That Vagbhata incorporates in his books, ideas of Buddhism and even Jainism on the one hand and with equal reverence the Vedic

¹ Brihat Samhita-Kandarpika Adhyaya.

² Hemadri, Bhattanarahari among the early commentators, Ganesh tarte, Krishna Rao Sharma. R. V. Patwardhan and others.

³ Rudraparashava, P. L. Vaidya, P. K. Gode, Harishastry paradkar, P. C. Ray.

⁴ V. Srinivasachariar.

ideas also on the other is itself a convincing proof to assume him as a Buddhist.

According to his own statement Vagbhata was born in Sindh, educated by his father Simhagupta and the famous teacher Avalokita.¹ The reverence and popularity his name and works have in South India especially in Kerala is greater than in any part of North India and much less so in Sindh. This has led to the belief that he migrated to south in his old age settled down in Kerala, taking up to teaching and practice of Ayurveda. Indu and Jejjata are mentioned as his direct disciples.²

Ayurveda had established itself well in all its eight branches as early as the 1st cent A. D., and had a very rich literature. With the religious and political turmoil in the country during the next two or three centuries, all scientific literature became discarded and disrespected. No new books were written, even the existing ones began to be locked up. The disappearance and non-availability of medical literature for study pained Vagbhata to

¹ समधिगम्यगुरोर्वलोकितात् गुरुतराच्च पितुः प्रतिमां मया ।

सुबहुमेषजशास्त्रविलोचनात् सुविहितोऽङ्गविभागविनिर्णयः ॥

Ash. San. uttar. 50.

² लब्धमश्रुकलापमम्बुजनिभच्छायाद्युतिं वैद्यकान्

अस्तेवासिनइन्दुजेज्जटमुखानव्यापयन्तं सदा ।

आगुल्फामलकञ्जुदकाञ्चितधरालक्षोपवीतो ज्वलत्

कण्ठस्थागरुसारसञ्चितदंष्ट्रां ध्यायेद्धृदं वाग्मटम् ॥

—Neelamegha in Tantrayukti.

his core. He collected the available literature of all the eight branches which were hitherto separate and composed one book '*Ashtanga Sangraha* - a compilation of eight branches.' He found that this book was of a high standard to the students of the day and prepared another book '*Asthanga Hridaya*' the essence of all the eight branches-in simple language. This second book became more popular than the first. The first section or the Sutrasthana of Vagbhata is considered to be the best as compared to similar sections of Charaka and Sushruta Samhitas.¹

But for the zealous efforts of Vagbhata a constant study of the eight branches of Ayurveda would not have been possible.

Vagbhata III The author of *Rasaratna Samuchaya* also styles himself as Vagbhata, son of Simhagupta in the colophons of every chapter of the book. This has led some to believe that he is identical with the author of *Ash. Hri.* But the ungrammatical language and many other internal evidences will amply prove that this author is but a poor namesake of that great genius Vagbhata of *Ash. Hri.* fame.

Rasaratna samuchaya : is a work of the 13th Cent. A.D. It does not go into details of *Rasa Samskaras* leading on to *Lohavedha* and *Dehavedha*. It chiefly aims at preparation of mineral recipes which are useful in the treatment of diseases. In its first part it deals with purification and inceneration

of Maharasas, Uparasas, Sadharanarasas, Manis and Lohas. In the second portion almost all the diseases are described along with their treatment by use of Rasa oushadhas.

Bhattara Harichandra (4th-5th A.D.) was the court physician of King Sahasanka. He was a great scholar both in literature and medicine. The celebrated poet Bana has mentioned his name respectfully. Battara Harichandra has written a commentary on Charaka samhita by name '*Chāraka Nyasa*' which is the earliest known commentary on this treatise. Unfortunately, it is not available to us in full, only a few chapters being found in manuscript form at the Oriental Library, Madras. As stated by Indu he is also credited with redacting, '*Kharanada Samhita*'. This also is not traceable now.

Amarasimha was one of the nine gems of King Vikramaditya's court (525-583 A.D.). Probably a Buddhist, he was a profound scholar in all branches of ancient wisdom. His significant contribution to Sanskrit literature is the famous lexicon, '*Namalinga-nushasana*' which is known popularly as '*Amarakosha*'. This is of interest to students of Ayurveda also, as it contains synonyms of innumerable drugs, parts of the human body and many other topics of medical science. Amarasimha's kosha is thus a valuable guide to the science of pharmacognosy of Indian herbs.

Poojyapada : In about 600 A. D. there lived in Karnataka, a great philosopher physician by name Poojyapada. A Jain by birth, his original name was

Devanandi. According to legend, he became so proficient in philosophy, grammar, medicine and various other sciences that even Gods began to worship his feet every day with flowers. Hence he came to be reverentially addressed as Poojyapada. Later Jaina authors speak of his greatness and achievements. He had acquired many Siddhies like Gaganagamana (walking in space), Suvarnakarana (preparing gold), etc., which testify to his skill in alchemy. He has written a number of books on Jaina philosophy, grammar and medicine¹. His work on medicine called 'Kalyana Karaka' deals with the Shalakya Tantra portion of Ayurveda as mentioned by Ugraditya.² It is not available to us in original but a few quotations from it have been found in later works.

Madhavakara : son of Indukara a native of Bengal flourished in the 8th Cent A.D. Details of his life are not available but his name has remained most revered till today, by his famous book 'Rugvinischaya' popularly known as *Madhavanidana*. Rigvinischaya is more a compilation than a original treatise as the author himself states. He intends this book for less industrious students of Ayurveda.³ Madhavakara

¹ न्यासजैनेन्द्रसंज्ञं सकलबुधनुतं पणिनीयस्य भूयो

न्यासं शुद्धावतारं मनुजन हितं वैद्यशास्त्रं च कृत्वा ।

यस्तत्त्वार्थस्यटीका व्यरचयदिहतां भात्यसौ पूज्यपादः

स्वामी भूपालवंदये स्वपरहितवचापूर्णदम्बोधवृत्तः ॥

Ugraditya-Kalyanakaraka.

² शालाक्यं पूज्यपादप्रकटितमधिकं।

Ibid.

³ Introductory slokas of Madhava nidana.

deserves appreciation in more than one way in the preparation of this book. This is the first and bold attempt to produce a subject-wise text book on Rogavigyana. Even though he has collected all important references from older Samhitas of Charaka Sushruta and Vagbhata, the book has not remained insipid but the ingenuity and scholarship of the author is clearly traceable in its pages. While describing the aetiology, symptomatology and prognosis of diseases, the book seeks to present them in a simple and cogent style for better understanding of the subject. The arrangement of this book appealed very much to the scholars of the subsequent centuries and it soon became famous. Vijayarakshita and Srikantha Datta have written commentaries on it. It has been translated to Arabic by muslim scholars during the Caliphate of Bagdad in the 9th century. A.D. The present day scholars of Ayurveda should follow Madhavakara in bringing out subject-wise text books on other topics of Ayurveda.

Ugraditya : was another famous jaina physician of Karnataka of the 8th Century A.D. He became an ascetic and joined the jain monastery at Ramagiri in the Vengi Province.³ He became proficient in both religious and scientific literature. His later life was

¹ चेलीषत्रिकलिङ्गदेशजनन प्रस्तुत्य सानूत्कटे

प्रोद्यद्दृक्षलताविताननिरते सिद्धैस्सविद्याधरैः ।

सर्वैर्मन्दरकन्दरोपमगुहा चैत्यालयालङ्कृते

रम्ये रामगिरौभया विरचितं शास्त्रं हितं प्राणिनाम् ॥

entirely devoted to the healing of the sick. His scholarship in medicine and efficient career as a physician attracted the attention of the great Rashtrakoota King Nrupathunga (815-877 A.D.), who took him to his court as the royal physician and preceptor. An orthodox jain he strongly deprecated the use of meat, wine and honey both as food and medicine. It is said that a great debate ensued once, in the presence of the king on this subject and the arguments of the learned Ugraditya were acclaimed by the scholars of the day. In pursuance of this policy itself, he wrote a book on Ayurveda known as '*Kalyana Karaka*' which is characterised by the total elimination of meat, wine and honey (varjita madya, mamsa, madhu) both as food and medicine.

Ugraditya's '*Kalyana Karaka*' contains 26 chapters of which the first seven deal with topics of Sutra-sthana, 8th to 18th chapters with Lakshana and Chikitsa of diseases, 19th to 25th with topics of Shareera, Kalpa, Agada and Rasayana tantras and the last dealing with Rishta Lakshanas. Another feature of this book is the new method of classification of diseases in accordance with the causative dosha viz. kapha vyadhis, pitta vyadhis, and vata vyadhis. This book, considered as one of the authoritative works on medicine among jain literature has been published through Sakharam Nemichand Granth-mala, Sholapur with a Hindi teeka by Vardhamana Parshwanatha Shastry in 1940.

Jejjata: (9th cent. A.D.) is said to have been a disciple of Vagbhata II. Nothing is known about

his life except that he is presumed to be a Kashmirian who might have come down to Sindh to study under the great master. He has written a commentary on Charaka Samhita known as '*Nirantarapada Vyakhya*' which is available today only in small fragments. He is stated to have written a similar commentary on Sushruta Samhita also which is referred to by later writers, but it is not available now.

Indu : (9th cent. A.D.) said to be another disciple of Vagbhata II and co-student of Jejjata. He has made his name as a commentator of Asthanga Sangraha. His commentary known as '*Shashilekha*' is of great importance as it is the only commentary available on this great treatise of Vagbhata. Indu has been reverentially mentioned by later writers which signifies his fame as a scholar. With apt. explanation on significant topics, shashilekha has won the appreciation of scholars since then.

Kartika Kunda : a famous physician of Bengal who lived in 9th century. He is referred to by both Chakrapani and Dalhana. He has written commentaries on both Charaka and Sushruta Samhitas. These commentaries are not available now.

Vrinda : (10th cent. A.D.) is known to us as the author of *Siddhayoga Sangraha*. No personal narrative of the author is available in this book. In *Siddhayoga Sangraha* the arrangement of chapters being the same as that found in *Madhava Nidana*, it deals with treatment of diseases. The author asserts that he has collected only very efficacious recipes from

ancient texts. A sanskrit commentary on this by Brikantha Datta speaks for the high esteem in which the book and its author were held by later Ayurvedists.

Gayadasa : (10th Cent. A.D.) was a famous physician of Bengal who served as a court physician to the kings of Goudadesha. Dalhana reverentially mentions him. He has written a commentary on Sushruta Samhita called '*Nvayachandrika*, also known as '*Soushruta Panjika*.' This commentary is not available now in original.

Tisata : (11th Cent. A.D.) said to be the son of Vagbhata. He is the author of a small treatise of only 400 slokas called '*Chikitsakalika*'. Intended to be learnt by heart for ready reference it gives three or four effective recipes for every disease.

Dalhana : (11th Cent. A.D) was born in a reputed vaidya family of Ankola a village near Mathura. His father Bharatapala was a great physician. Dalhana styles himself as '*Viveka brihaspati*' probably a title conferred on him¹ He is best known as the author of '*Nibandha Sangraha*' a commentary on Sushruta Samhita, which is a repository of opinions of earlier scholars like Jejjata, Gayadasa, Bhaskara, Madhava, Brahmadeva and others. Dalhana has shown great skill in explaining the subject in simple language. Within a short time it gained popularity and began to be studied. Its significance is all the

¹ Introductory slokas to his commentary on Sushruta Samhita.

more great being the only commentary on Sushruta Samhita available in full to day.

Naradatta : (11th cent. A.D.) was a reputed Ayurvedic physician and scholar of Bengal. He was the preceptor of the famous commentator Chakrapani who has respectfully acknowledged his indebtedness to his preceptor in writing the commentary on Charaka Samhita.

Chakrapani Datta : (1040 A.D) was a famous commentator, compiler and physician. He was born in a vaidya family of Mowresewar, a village in the Bribhum District of Bengal. His father, Narayana Datta was also a reputed physician who served as the kitchen superintendent of King Nayapala of Gowda desha (part of Bengal). Chakrapani Datta, studied under a great master, Naradatta, who was well known for his scholarship in Ayurveda.¹ Although a devout Hindu, he had high regard for Buddhism and his leanings towards it, is clearly evident in his writings. He earned great fame very early in life and amassed such wealth that till recently his descendants lived as big zamindars.

Chakrapanidatta stands out eminently by his valuable contribution to Ayurvedic literature. His monumental works are 1) elaborate commentaries on both Charaka and Sushruta Samhitas. 2) Chikitsa Sara Sangraha, a compilation work on Kayachikitsa, 3) Dravya guna Sangraha and 4) two lexicons of Ayurvedic drugs.

¹ Concluding verses of his commentary.

Ayurveda Deepika: his commentary on Charaka Samhita is considered an authoritative one on this great treatise. The author was inspired by the work of his preceptor as admitted by himself yet the stamp of Chakrapani's genius is easily recognisable. He has quoted about fifty authorities as references. His lucid and erudite explanations on various topics of philosophy are very significant. This scholarly commentary won for him the title *Charaka Chaturanana*. *Ayurveda Deepika* is the only commentary of antiquity available to us in its entirety.

Chakrapani's masterly delineation of Panchabhoota Vigyana, Doshadhatumalavigyana, the concept of Dhatwagnis, the three Nyayas relating to Dhatuparinama and many other physiological and therapeutic doctrines mark a great advancement in scientific thought. That he was the first to incorporate metallic recipes in Ayurvedic treatment also deserves appreciation.

Bhanumathi: this commentary on Sushruta Samhita is another great work, wherein Chakrapani has shown himself equally conversant with surgical knowledge. Unfortunately this is not available today except for a few passages quoted by later authors.

Chikitsa Sarasangraha: also known popularly as '*Chakraadatta*' is a compilation of great merit. It is a repository of principles of treatment of all the three schools of medicine, the Attreya school, the Dhanvantareeya and the Agasthya Schools. He has collected and arranged the treatment of diseases according to the Madhava Nidana. He has described very effective recipes for all diseases and the medicines

are of both vegetable and mineral origin. Modelled on the earlier work of Vrinda's. Siddhayoga, Chakradatta has still remained a good guide to practitioners. Two commentaries have also been written on this book. 1) '*Rathnaprabha*' by Nischalakara and 2) 2) '*Tatwa Chandrika*' by Shivadas Sen.

Dravya Guna Sangraha: deals with the properties of all the drugs mentioned in the Brihatrayee. especially those that are used as articles of food. Anupana, Dinacharya and Ritucharya also find place in it. Many verses are taken *verbatim* from Charaka and Sushruta. Shivadas Sen has written a commentary on this book also.

Muktavali: is another important lexicon on Ayurvedic drugs. It is intended to facilitate the students in understanding the pharmaceutical terminology and properties of drugs.

Another handy guide to young practitioners form the pen of Chakrapani is '*Vyagradaridra Shubaakara*'.¹

Chakrapani was one of the brightest among the luminaries of India during the eleventh century and has laid the Ayurvedists in great debt by his writings.

Someswara: (1126-38A.D.) was a Chalukyan Emperor of Karnataka with his capital at Kalyani. He was a great patron of literature, himself being a profound scholar in almost every branch of knowledge. He

¹ For a detailed study refer K.v.j. Prabhakar Chattarji's article "Chakrapani" in Nagarajun—Jan. 1962.

has written an encyclopaedic work by name *Abhila-
shilartha chintamani* or '*Manasollasa*'. The book is
arranged in three parts each having 20 chapters. It
is worthy of study by Ayurvedists, as it describes
many topics on treatment of diseases, social and
personal hygiene etc., In the first Vimshati, causes
and treatment of many common diseases are described
The second Vimshati deals with Rasayana yogas,
Dhatuvada (chemical processes of preparing silver
and gold) treatment of horses and elephants, testing
of precious stones, good and bad omens etc. The
third describes Dinacharya in great detail covering
topics like food, dress, sleep, games, amusements and
such others All these are based on the principles of
Ayurveda and so can well be adopted by one and all.
The last two Vimsatis deal with discussion on all
branches of literature and scientific knowledge, inclu-
ding various arts and crafts. Even though it is intended
mainly for educating the princes, its study is of great
benefit to the students of Ayurveda and others alike.
The author has named it as the 'Jagadacharya Pustaka'
(Universal Teacher) which it richly deserves. This
book has been published in Gaikwad Oriental Series.
Baroda.

Arunadatta : son of Mrigankadatta, was proba-
bly of Bengal. A scholar in Sahitya, Vyakarana,
Vaidya and many other branches of ancient learning
he is quoted as an authority by later writers. As
Hemadri, the celebrated scholar of the 13th century
has mentioned Arunadatta by name, his date can
be conveniently taken as the early part of 12th
Century A D.

Arunadatta has written a commentary on Vagbhata's *Asthanga Hridaya* and has named it '*Sarvanga Sundari*'—a name really apt to it. It is held in high esteem in view of its easy diction and lucid explanation. It is available to us in full and as such its importance is great. He is also credited with a similar commentary on *Sushruta Samhita* and another independant work '*Manushyalaya Chandrika*' dealing with geology and architecture. These two works are not available now.

Somadeva : (12-13th Century A.D.) supposed to be a king of Karavala Bhairava (?) is the author of '*Rasendrachoodamani*' a book on *Rasa Sastra*. Extraction, purification and inceneration of metals and minerals are described in it.

Yashodhara : (13th Century A. D.) the author of '*Rasaprakasha sudhakara*' was the son of Padmanabha, belonging to the family of Gowda brahmana from the town of Junagadh in Sourashtra. As the author of *Rasaratna samuchaya* has taken many stanzas from Yashodhara's book he must have become famous at least half a century earlier.

Rasaprakasha sudhakara : containing about 1240 verses divided in 13 chapters deals with almost every aspect of *Rasashastra* including transmutation of metals and one hundred efficacious recipes.

Keshava : (1240 A.D.) son of Mahadeva was born in Vidarbha. He studied *Ayurveda* under Bhaskara a great scholar and achieved reputation as an eminent

physician. Sri Simharaja, the king of Dandaka held him in high esteem.

Keshava has written a book called '*Siddhamantra*'. It is a small compendium of only 170 slokas. Its theme is "about definite understanding of properties of medicinal drugs and technical terms used in Dravyaguna Vigyana" This is the only book of its kind with this special academical distinction. Bopadeva, his son has written a commentary on it called '*Siddhamantra Prakasha*.'

Bopadava : (1264 A. D.) was the illustrious son of Keshava. He migrated from Vidarbha to Devagiri in Karnataka and became a desciple of Dinesha, a reknowned physician, who was proficient in all branches of Indian learning. Bopadeva was quickly spotted out by Hemadri who took him to his court. He propounded a new system of Sanskrit grammer which received great encouragement by Hemadri himself. Bopadeva wrote many books on different subjects : two of these deal with Ayurveda. The first *Siddhamantra Prakasha* is a commentary on his father's book *Siddhamantra*. The second one *Vaidya Shata-ahloki* (also known as *Bopadeva Shataka*) is a collection of 100 useful recipies. Aufrecht mentions that *Goodhirtha Deepika Vyakhya*, a teeka on Sarangadhara samhita is also in the name of Bopadeva.¹ But he might be a different namesake, posterior to Sharangadhara (14th Century) Bopadeva outshone his brilliant father both as a physician and as a man of letters.

¹ Catalogus Catalogorum-Aufrecht.

Hemadri : (1271 A.D) was the celebrated minister of Yadava king Mahadeva (1260-71) and his son Ramadeva (1271-1309) of Devagiri in Karnataka. Born in an orthodox brahmin family known for its scholarship, Hemadri became proficient in all branches of ancient Indian learning. It was only for convention that he was being called the minister of Mahadeva. On the other hand his great scholarship and the patronage extended to scholars had inevitably raised him to the status of a sovereign and he was even being addressed as Raja Hemadri. Many were his achievements : books of great merit, a new style of architecture, new reforms in maharashtra script etc., to mention only a few.

The most famous among his works is "*Chaturvarga Chintamani*" a voluminous work running into several thousands of pages. Written at the instance of king Mahadeva, it deals with all facets of kingship and statecraft based upon Hindu Dharma.¹ Copious references from ancient authorities have incresed the authority of the book. Hemadri's contribution to Ayurvedic literature is his commentary on Vagbhata's Ashtanga Hridaya known as '*Ayurveda Rasayana*'. An erudite dissertation, it has commanded great respect. In writing this commentary the author has not simply followed the original in respect of the order of chapters, but has suitably changed them for the purpose of giving a better understanding of the respective topics. Unfortunately, only a small part of this great commentary is available today. The

¹ Introductory verses of Chaturvarga Chintamani.

greater part, on Shareera, Chikitsa and Uttara sthanas, is not available and this loss is to be highly regretted.

Shodhala : (12th Cent A.D.) son of Vaidyananada hailed from Gujarat. He wrote two books '*Gada Nigraha*' and '*Guna Sangraha*'. The former is an epitome of Ayurveda dealing with Bheshajakalpana and treatment of diseases in all the eight branches of Ayurveda. The author expresses his indebtedness to earlier authors like Hareeta, Bhela, Ksharapani, Tisata and others.

Gunasangraha is a Nighantu describing the properties of about 300 drugs which are in common use.

Ishanadeva : (12th Cent A.D) son of Keshavadeva of Bengal, is said to have written commentaries on Charaka samhita and Madhava Nidana which are not available now. He is referred to by Vijayarakshita.

Iswara Sena : (12th Cent A.D) another commentator of Charaka Samhita and Ashtanga Hridya and another independent book, *Vaidyaka panjika*. These are not available now.

Govinda Bhagavata (Bhikshu) : (12th Cent A.D) is the author of *Rasahridaya Tantra*. He was a Bouddha Bhikshu and says that he wrote the book at the instance of the king of Kirata.¹ He is identified by some, with Govinda Bhagavatpada, the preceptor of Sri Shankaracharya.² Rasa samskaras, transmutation

¹ Colophon at the end of the book.

² Introduction to *Rasahridaya Tantra*. G. T. Kale.

of metals, rejuvenation of the body by use of marcurials are some of the topics described in it.

Another important work of this period (12th cent A.D.) is *Rasarnava*, which is in the form of a dialogue between Shiva and Parvathi and its authorship is not claimed by any human being. Deekshavidhi, oushadhinirnaya, rosoparasa dravana and marana, beeja sadhana, jarana, bandha, lohavedha and finally dehavedha are all discussed in great detail.¹

Another work of this century which deserves mention is a treatise dealing with Ayurvedic materia medica by name *Dhanvantari Nighantu*. Also known as *Dravyavali Sangraha* it has remained a book of disputed authorship as no mention of the name or time of the author is found in it. Divided into seven chapters, it describes the various synonyms, properties and uses of drugs of vegetable, mineral and animal kingdoms ; It has been accepted as a text-book on the subject since a long time in view of its comprehensive nature.

Vijayarakshita : (13th Century A.D) This scholar-commentator hailed from Bengal. He wrote a commentary on Madhava Nidana and called it *Madhukosha*. He does not lay claim for much originality in it and asserts that he is indebted to earlier commentaries. His commentary is only for the first 31 chapters and for the remaining chapters starting from Prameha, his disciple Srikanta Datta has continued the commentary in the same name. — This

¹ *Rasarnava*-edited by Sir P. C. Ray, Calcutta, 1910.

fact probably leaves us to doubt that Vijayarakshita might have died before completing the task. *Madhukosha* is the first lucid commentary on the treatise of Madhavakara and is held in high esteem. *Sooktimuktavali* is another work of Vijayarakshita as held by his disciple.

Srikanthadatta :-(13th Cent.A.D.) A direct desciple of Vijayarakshita. His father by name Narayana belonged to nagara vamsha, probably of Bengal. He studied under Vijayarakshita and wrote two commentaries (1) *Madhukosha* which was left unfinished by his preceptor and (2) *Kusumavali*-an erudite commentary on Siddha Yoga of Vrinda. The later commentary won for him great fame as a scholar. Both these commentaries are available in full and are considered as very valuable for the study of Roga-vigyana.

Vangasena :-(13th Cent. A.D.) son of Gadadhara, and hailed from Bengal. He is the author of '*Chikitsa-sara Sangraha*' known popularly as '*Vangasena*' itself. It is a comprehensive work dealing mainly with treatment of diseases, with a few chapters on Nidana in the beginning and of Panchakarmas, Dietetics and pharmaceutical processes at the end. The book has continued to be popular in and outside Bengal.

Vachaspati : (14th Cent. A.D.) is the author of another commentary on Madhava Nidana by name *Atanka Darpana*. He is not to be mistaken for an earlier person of that name, who was a noted philosopher-commentator of 9th Century A. D. It is beyond any doubt that this Vachaspathi is posterior

to Vijayarakshita as many sentences are taken from his commentary *Verbatim*. Atanka darpana is a concise commentary on Madhava Nidana and fades into oblivion in the light of Vijayarakshita's scholarship.

Udayaditya Bhatta : (14th Cent. A.D.) was the son of Madhava Bhatta probably belonging to Karnataka. He has written a commentary in Sanskrit on Vagbhata's Asthanga Hridaya. Only a small portion of it (10 chapters of Nidana Sthana) is available today in the form of Mss.¹

Bhatta Narahari : (14th Cent. A. D.) was another famous scholar from Karnataka. He was the son of Bhatta Sudeva and desciple of Ramakavishwara. He is the author of '*Vagbhata Khandana Mandana*' which is aimed at refuting some of the allegations levelled against Ashtanga Hridaya of Vagbhata by a scholar named Vidyadhara. The author has supported all his arguments with quotations from Charaka, Sushruta etc. This work has a special distinction in being the only one of its kind among Ayurvedic literature. Its publication will certainly be a valuable addition long awaited.²

Vishnudeva : Son of Mahadeva, was a court physician of King Bukka I of Vijayanagar. (1356-76) He is the author of a book by name *Rasarajalakshmi*. Sir P. C. Ray states that it deals with murcureal operations, transmutation of metals etc. It is not

¹ Mss in Oriental Research Institute, Mysore.

² Ibid.

available now except for a few pages quoted by Sir P.C Ray from a mutilated Mss of Banares.¹

Sayana : (1360 A.D.) was the illustrious brother of Vidyaranya of Vijayanagar fame. An erudite scholar in Vedic literature, Sayana did yeomen service to the revival of Hindu dharma. His *magnum opus* is the erudite samskrit commentary on all the four Vedas, of which that of the Atharvaveda is of special importance to the study of Ayurveda. This has helped in great measure to understand the true meaning of words and ideas of the Atharvaveda.

Sharangadhara : (1363 A. D.) was the grandson of Raghavadeva and son of Damodara. Raghavadeva was a respected philanthrophist during the reign of Raja Hammira of Shakambhari (Gujarat).

Sarangadhara acquired mastery both in Ayurveda and Sanskrit literature. He is the author of a treatise on Ayurveda which is known to day in his own name as '*Sharangadhara Samhita*' and of another book '*Sarangadhara Paddhati*' dealing with moral anthology. His treatise on Ayurveda became popular in a very short time and is counted as one among the 'little triad.' (Laghu trayi).

Sharangadhara Samhita has three sections, the first one dealing with preliminary discourses on principles of pharmacy, examination of the patient, anatomy and physiology and enumeration of diseases. The second section deals with pharmaceutical processes and useful recipes both of vegetable and mineral

¹ History of Hindu Chemistry-Part II

kingdoms. The third section describes the panchakarmas in detail. Even though it does not propose any advancement on Ayurvedic doctrines it has continued to be a very useful guide to students and practitioners of Ayurveda. Three commentaries are also available on this viz. *Deepika* by Adhamalla, 2) *Goodartha Deepika* by Kashirama, 3) *Ayurveda Deepika* of Rudra Bhatta. All these commentaries are available in full.

Narahari : (14th Cent. A.D.) son of Eshwara Suri and disciple of Amriteshananda is known to us as the author of *Rajanighantu*. In the colophon to this work he states that his ancestors were living in Kashmir, belonging to the family of Somanandacharya. In the prefatory verses he says that he is going to write this book incorporating in it, the synonyms prevalent in Karnataka and Maharashtra. This statement goes to prove that he or his ancestors migrated from Kashmir and settled in northern part of Karnataka. There is reason to believe that the author might have taken to the life of an ascetic in a Shaiva Mutt. Details of these facts are yet to be explored.

Rajanighantu also known as *Abhidana Choodamani* has 23 chapters dealing with synonyms, actions and uses of drugs of vegetable, and animal kingdoms. Absence of mention of opium decides its date to be earlier than 15th century A.D. It is a very valuable book both for students and practitioners of Ayurveda alike.

Veerasimha : (1383 A. D.) son of Devavarma, belonged to a royal family known as Tomaravamsha, of

Kashmir, according to some scholars and Gwalior according to some others. Veerasimha was proficient in many sciences and especially in Jyotisha, Ayurveda and Dharmashastra. He has written a book *Veerasimhavaloka* wherein he has tried to explain the influence of sins and planetary movement in disease manifestation. Among the very few books dealing with medical-astrology and omens Veerasimha's book has an individuality of its own.

Neelakanta Basavaraja : (14th Cent.A.D.) son of Namashivaya was a native of Kottur in Dharwar district of Karnataka. He was a disciple of Ramadeshika, founder of Nidimamidi school of Veerashaiva sect.¹ He was well versed both in literature and Ayurveda as could be seen by his titles. He has been identified by some scholars with Basaveswara the saintly minister of Bijjala, the king of Kalyan.² and founder of veerashaiva religion whose place of birth was Inguleswara Bagewadi and the name of his father was Madiraja. These go to prove that the two persons are different. Kottur Basavaraja is the author of a book on medicine known as '*Basavarajeeyam*'. This is written in Sanskrit with the author's commentary in Telugu here and there, on difficult passages. The first three chapters deal with Doshadivigyana and Asthasthana pariksha, a new method of clinical examination. The next 20 chapters are devoted to the treatment of diseases and the last

¹ Colophon at the end of the book.

² Govardhandas Changani-Preface to Basavarajeeyam,

chapter describes the methods of preparation of Rasaoushadhas. The majority of recipes are rasaoushadhas. The book has been very popular in Andhra and adjoining states as well. It is a distinguished contribution to Ayurvedic literature with its originality of the Asthasthana pariksha

Siddha Nityanatha : (14th Cent A.D) author of Rasaratnakara styles himself as Parvatiputra Nothing more about his where abouts are found in this book. *Rasaratnakara* as the author himself states, is an essence of all earlier works like Rasarnava, Rasamangala and of Nagarjuna, Sushruta, Vagbhata, Siddha Charpati, including those he has learnt from his preceptor all of which have been experimentally proved.' The treatise running into nearly a thousand pages deals with Rasa samskaras, Rasoparasalohakalpas and treatment of diseases of all the eight branches of Ayurveda with Rasoushadhas.

Dhundukanatha : (14th Cent A.D.) was a desciple of Kalanatha and has written a book by name '*Resendra Chintamani*'. The book in 8 chapters describes Rasasamskaras and treatment of diseases. The author seems to have attained proficiency in both alchemical procedures and therapeutics as he asserts that no worthless recipe can be found in his book. Maniramsharma of Ramagarh ; Jaipur state, has lately written a sanskrit commentary on this work.

Gopalakrishna (Battacharya) : (14th Cent A.D.) a famous physician of Bengal, is the author of '*Rasendra sara Sangraha*'. The aim of the book is therapeutics and describes shodhana and marana of Rasoparasa

and lohas. Bulk of the book is devoted to the treatment of diseases using Rasoushadhas.

Govindacharya: (14-15 Cent A.D.) the author of '*Rasasara*', was the son of Suraditya a native of Gujarat. He studied under a famous preceptor by name Sridhara and learnt alchemy. *Rasasara* deals exclusively with alchemical processes like jarana, bandha and vedha. A comprehensive treatise on the subject, *Rasasara* is held in esteem even to-day.

Some of the other treatises on Rasashastra belonging to this period of Indian history are *Rasakalpa* said to be a portion of Rudra Yamala Tantra, *Rasa nakshatramalika* of Manthana Simha physician to the king of Malwa, *Dhaturatnamala* of Devadatta of Gujarat, *Rasendra kalpadruma* and *Rasakoumudi* of Madhava. Another work *Rasapradipa*, belonging to the later part of the 15th century A.D. describes for the first time the preparation of mineral acids by distillation (Shanka Dravaka) and its use in therapeutics.

Shivadasa Sena: (1448 A.D.) son of Ananthasena, hailed from a famous vaidya family of Bengal. Ananthasena was the physician to Barbara Shah, King of Gouda. A devout Vaishnava despite his name, Sivadasa was an erudite scholar in Ayurveda as can be found from his writings. His chief works are a) *Tatwapradeepika Vyakhya* on Charaka Samhita. b) *Tatwabodha Vyakhya* on Asthanga Hridaya c) *Teeka* on Chikitsasara Sangraha and Dravyaguna Sangraha both of Chakrapani Datta.

Unfortunately his commentary on Charaka Samhita is available only in fragments scattered here

and there and that of Asthanga Hridaya being not available at all. The other two commentaries are available in full.

Bhavamisra (15th Cent A.D.) son of Latakamishra was a reputed physician of Benares. He was a great scholar in Sanskrit literature and many ancient sciences. His proficiency in Ayurveda is evident from his magnificent book '*Bhava prakasha*'. Intended to be an epitomised treatise on Ayurveda covering all important topics and to present them in a easy style the book has become sufficiently voluminous. In spite of this, its comprehensive nature has been greatly appreciated since then.

The book comprises of three sections; the first one with seven chapters describes origin of Ayurveda, cosmology, embryology, anatomy, principles of health, properties of articles of food, materia medica examination of the patient and panchakarma procedures. The portion on materia medica includes many new drugs not mentioned in ancient classics but are in use by the Ayurvedic physicians. The second section with 68 chapters exclusively deals with aetiology, pathogenesis and treatment of diseases of all the eight branches of Ayurveda. He has for the first time described phirangaroga, the venereal diseases (gonorrhoea and syphilis) which were brought to India by the Portuguese and has advocated the use of chobchini and mercury for their treatment. The last section deals with Rasayana and Vajikarana. Even though he has borrowed some verses from earlier works, they have been made upto date with inclusion

of more data. Detailed description of different kinds of Sannipata jwara, Vata vyadi, Phiranga roga and such others are illustrative of his clinical acumen. He is also to be credited for the introduction of new drugs like chobchini into treatment. All these have made Bhavaprakasha a treatise comparable in technical excellence with the great works of Charaka, Sushruta and Vagbhata. There is a sanskrit commentary on this treatise by Jayadeva of Kashmir. Bhavamishra has also written another book called 'Gunarathnamala' dealing with actions and therapeutics of medicinal drugs.

Bhavamisra has set a great example to modern Ayurvedists to incorporate new things-whether drugs diseases or procedures of treatment-into the fold of Ayurvedic system and making it up-to-date. Bhavaprakasha is thus respectfully counted as one of the little triad (Laghu trayi).

Kshemaraja : (1548 A.D.) was the physician and kitchen superintendent of a certain king Vikramaditya of Kashmir. His father by name Manmatha belonged to the Sanadhya family, a famous Vaidya-vamsa. He is the author of two works 1) *Kshema Kuto-ohala*-a treatise describing Paka shastra. Various food products, their actions and properties with reference to promotion of health have been elaborated. 2) *Chikitsasara sangraha*-deals with treatment of diseases with efficacious recipes probably of his own experience.

Another noteworthy book of this century is *Ayurveda Sootra* whose author is not known. It has an erudite Sanskrit commentary by a scholar named

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Yoganandanatha. In the words of Dr. R. Shyama Shastry, the editor of this book 'both the compiler of the sutras and the commentator are not older than 16th Cent. A.D. The commentator Yoganandanatha is no less obscure then the author of the Sutras. It is probable that as he calls himself Ananda, he belonged to the school of Ramananda Saraswathi'.¹

Ayurveda Sutra contains aphorisms in sixteen Prasnas or Chapters. This has an originality of its own in being the only work which combines Yoga with natural Rasa dietary ensuring perfect health and emancipation. The efficiency of Pranayama both as curative and preventive method of treatment is its first doctrine; the second, that Ama in the gastrointestinal tract is the root cause for all diseases; the third, use of Rasa dietary to cure and check diseases, the fourth, the practice of Yogic concentration of mind to get rid of bodily diseases;—These are some of the important and novel doctrines described in this work. After a careful study of the text, the learned editor has come to the conclusion that '*Ayurveda Sutra*' is a compilation from various medical and yoga works of which some are as early as the 1st century B.C. and a few as late as 15th Cent. A.D.² Yoganandanatha's commentary available now is only upto the sixth prasna and not further.

Anandaraya Mekhin : is known to us as the author of *jeevanandanam*-a drama in metaphor on Ayurveda.

¹ Introduction to '*Ayurveda Sutra*' by Dr. R. Shamashastry, Mysore University Publication 1922.

² Ibid.

He was a minister of the Maratha kings of Tanjore and a versatile scholar of oriental learning. The drama has, as its *dramatis personae* a galaxy of diseases headed by Rajayakshma (Tuberculosis) which wage a war on King Atma (soul) fortified within this body assisted by his loyal ministers, Buddhi (intellect) and Jnana (knowledge). A fierce battle ensues with the final victory to the king. This book has a distinction of being the only one of this type in the whole of Ayurvedic literature¹. The author shines with his sound knowledge of Ayurveda.

Lolambaraja : (1633 A.D) son of Diwakara Bhatta was a native of Junnar in Poona District. He succeeded in getting, as his wife a daughter of a Muslim Sultan of Bahamani Kingdom. After her untimely death Lolambaraja became an ascetic and devotee of Goddess Durga at Saptasingi in Nasik District. Lolambaraja is the author of about five treatises, three of which are on Ayurveda. viz. 1) *Vaidya Jeevana*, 2) *Vaidya-vatamsa*, 3) *Chamatkara Chintamani*. The first one has become very popular in view of its simple recipes to diseases, described in lyrical language in the form of a dialogue between him and his wife. It has been translated into almost all Indian languages.

Todaramalla : (1539 A.D.) was the famous Hindu minister of Emperor Akbar. He was great scholar in many sciences of which Ayurveda was one. He has to his credit a voluminous work, *Todarananda* in which a separate section by name '*Ayurvedasoukhyā*' deals with diseases and their treatment.

¹ For details refer 'Hindu Medicine' by Zimmer.

Indrakanta Vallabhacharya : son of Amareswara Bhatta was a reputed physician of Andhra during the 16th Century. His treatise on therapeutics *Vaidya Chintamani* is a popular reference book even today. With a lucid description of Ashtasthana pariksha, symptomatology and treatment of diseases, it covers all the eight branches of Ayurveda.

Nayana Sekhara : is the supposed author of *Yoga Rainhakara* another popular work on therapeutics. Just like Vaidya Chintamani, this book also contains selected recipes for all diseases, Rasaoushdhas being mentioned copiously.

Moreswara Bhatta : (1547 A.D.) son of Manikabhata is known to us as the author of *Vaidyamrita*. This book is a small compendium of about 200 recipes which have been found efficacious by his preceptor.

Mitra Mishra (1602 A.D.) is known to us as the author of *Viramitrodaya* an enclopaedic work dealing with law, medicine and many other subjects.

Bhaskara Bhatta (1679 A.D.) is the author of a famous work by name *Shareera padmini*. It stands out eminently as the only book dealing with human anatomy and surgical operations combined in one. It is a pity that it has not been published so far.

Raghunatha Pandita : (1699 A.D) was a resident of Champavati, the modern choul in Kolaba District of Bombay. He is the author of two books *Vaidyavilasa* and *Chikitsa manjari*—both considered as handy guides to physicians in their practice.

Bindu : The author of *Rusa paddhati* was a great adept in Rasa Shastra. The book deals only with the

therapeutical part of Rasa shastra viz., the first eight samskaras of Rasa and various recipes for clinical use. Some of the recipes are original to this book. It has a lucid sanskrit commentary by Mahadeva, the author's son. As a good number of Marathi words are found in the commentary, it is inferred that Mahadeva and his father belonged to Maharashtra.

Madhava Upadhyaya : (1700 A.D.) hailed from Sowrashtra but spent greater part of his life at Kashi. He was a great exponent of the alchemical school of Rasashastra. His book *Ayurveda Prakasha* deals with all the Rasasamskaras—purification, incineration and uses of all minerals and metals. The author asserts that the processes described here have been personally tried and hence need not be doubted. Bhavaprakasha and a few other earlier works are referred to in the chapter on treatment of diseases.

Rajavallabha : (1670 A.D.) is the author of the lexicon—*Rajavallabha Nighantu*. It has six chapters describing only Sadvritta, properties of articles of food and drink, medicines etc. It is more a hand book on personal hygiene than a materia medica. A sanskrit commentary for this work has been written by a Gangadhara of Bengal.

Govinda Dasa : 19th Century A.D.) has written a treatise on therapeutics by name *Bhaishajyaratnavali*. This work enjoys good popularity as a compendium of efficient recipes. New diseases like vrikka roga (kidney disease) masthishka roga (brain disease) (brain diseses) common in modern days have been incorporated in it. A sanskrit commentary on it by Narendranatha Mithra of Lahore is also available.

Gangaprasad Sen : (early 19th century A D.) a great Ayurvedist of Bengal was a friend of Eswara Chandra Vidyasagara and physician to Sri Ramakrishna Paramahansa. His efficient treatment brought him great fame. He had the distinction of having among his patients a large number of the princes and few europeans as well. He was the first Ayurvedic physician of Bengal who raised the dignity of Kavirajas. He started large scale manufacture of Ayurvedic medicines and even exported them abroad. He started publishing the first Ayurvedic magazine 'Sanjeevini' in Bengali. Recognising his valuble services to the society and to the science of Ayurveda, Queen Victoria honoured him with a distinguished Service Medal in 1877.

Gangadhara Roy : Son of Bhavani Prasada Roy was another towering personality of the 19th century Bengal. A great scholar in all branches of oriental learning, he dedicated his entire life for resuscitation of Ayurveda. Large number of disciples used to throng to him for knowledge. He was an able exponent of Ayurvedic doctrines and a very good teacher. He was a voluminous writer also and has to his credit nearly a dozen outstanding books on Ayurveda¹ not to mention many more on other subjects of sanskrit literature. The foremost among his Ayurvedic works, is undoubtedly his erudite Sanskrit

His chief works :—1. Agneya Ayurveda Vyakhya. 2. Raja vallabhiya Dravyagunavritti. 3. Paribhasahaka. 4. Prayoga Chandrodaya. 5. Ayurveda Sangraha. 6. Mrutyunjaya Samhita. 7. Nadi pariksha. 8. Bhaishajya Rasayana. 9. Arogya Sootram. 10. Bhaskarodaya.

commentary *Jalpa Kalpataru* on Charaka Samhita. In this, he has discussed many disputed points of the original treatise, comparing the merits of various views held by scholars from the earliest times. It is on this spirit of enquiry that he has named his commentary as *Jalpakaalpataru*. Its great erudition and richness of ideological criticism has made it a worthy book for post graduate study. Gangadhara lived up to a ripe age of 86 as a bright luminary next only to Chakrapani Datta. He was to Ayurveda what Vivekananda was to Hinduism.

Harana Chandra Chakravarti : (late 19th and early 20th Century A.D.) son of Ananda Chandra, studied sanskrit literature for a long time and became a disciple of Gangadhara Roy to learn Ayurveda. He attained proficiency in this science also and set up practice at Calcutta. Soon he acquired great fame both as a physician and also as a surgeon. He performed different types of operations described in Sushrutasamhita and his dexterity at ophthalmic operations brought him a great name. He wrote a sanskrit commentary on Sushrutasamhita by name *Sushrutārtha Sandeepana*. It is the latest sanskrit commentary on this treatise. It has earned the admiration of scholars for its practicality on surgical therapy and an insight into Jyotisha, Smriti and such other subjects. In 1921, he was elected as the President of the All India Ayurveda Conference in recognition of his services to Ayurveda.

H. H. Bhagawat Sinbji-Maharaja of Gondal—was born in 1865, went to Edinburgh University for medical

study and got M.R.C.P.E. and M.B.C.M. He had great ambition to bring to the minds of modern scholars—both eastern & western—the great medical heritage of India and its achievements. This he ably did after his return from abroad, by writings a doctorate thesis, which won for him the Fellowship of the Royal College of Physicians, Edinburgh. The thesis, was later published in 1825 as "*A Short History of Aryan Medical Science*". This book has remained to this day a valuable reference book on the subject.

Zandu Vittalji Bhat : The founder of the famous Zandu pharmaceuticals was born in Kathiawad in the year 1831 and served as the physician to the Jamsaheb of Navanagar. His fame as an efficient Ayurvedic physician spread through out India. He started a Rasashala at Jamnagar in 1865 and later, his relatives and friends shifted the same to Baroda which has now attained a great name, as Zandu pharmaceuticals—a pioneering manufacturing institution for both Ayurvedic and modern medicines.

Umeshachandra Gupta : is known to us as the author of the first Ayurvedic dictionary in sanskrit by name '*Vaidyakasabda Sindhu*' published in 1824. He was the chief librarian of the Govt. Sanskrit College Calcutta. Inspired by Mahendralal Sircar, Vice-chancellor of Calcutta University, this work was completed within a very short time. This book was revised and enlarged by Nagendranathsen and its second edition was published in 1935. Its utility is keenly appreciated to this day both by Ayurvedic and Sanskrit scholars.

Shankardaji Shastri Pade: was born in 1867 at a village near Poona. He was initiated to Sanskrit and Marathi literature, Vedas and Vedangas from the great oriental scholar Gudulal Maharaj and later learnt Ayurveda from Bhanu Vaidya Kulkarni. He devoted his entire life for social and religious reformations. He wrote innumerable articles and associated himself with Theosophical Society, Sanatana Dharma Parishat, Freedom struggle etc. He published Ayurvedic magazines, "Raja Vaidya" "Arya Bhishak" "Sad-vaidya Koustubha" and through them spread light on the appalling conditions of Ayurvedic society in India and need to rectify them. With the help of his friends he founded the Akhila Bharata Ayurveda Maha Mandal and was elected its first president. He strived hard to consolidate all Ayurvedists under this organisation. While at Baroda, he succeeded in convincing the Maharaja to start an Ayurvedic College. Many more were his activities devoted to the better treatment of Ayurveda in India. He breathed his last in 1960. He will ever be remembered as the founder of All India Ayurveda Maha Mandal.

P. S. Warriar: a reputed physician of Kerala was born in 1869 and had his education in Ayurveda through K. Vasudevan Moose eldest of one of the Astha Vaidya family, and later got a good working knowledge of western medicine also, from Diwan Bahadur Dr. V. Vergheese. He started his own clinic "Arya vaidya Shala" in 1902 at Kottakal. By his efficient treatment and scholarship in Ayurveda he earned name and money, which he utilised for the propagation of Ayurveda. He founded a trust called

'Aryavaidya Samajam' under whose banner he started a charitable hospital, specialising in panchakarma treatment; an Ayurvedic Journal 'Dhanvantari' and his own Ayurvedic School. He wrote books on Ayurveda the one most valued being "*Astangashareeram*" in Sanskrit. He was the member of the Central Board of Indian Medicine, Madras; President, All India Ayurveda Maha Sammelana and founder of Keraleeya Ayurveda Samajam. Recognising his valuable services to the country and to the science of Ayurveda, the Government of India conferred on him, the coveted title of 'Vaidya rathna' in 1933,

Jeevaram Kalidas Shastry: hails from Gujarat. After, his early education in sanskrit, he wandered in the regions of Himalayas along with his preceptor Sri Achutanandji, who taught him Ayurveda and in particular Rasashastra, Mantravidya, Yoga shastra etc. After a strenuous life of this nature he acquired mastery over Rasashastra. He lived at Bombay for some time and finally established as an Ayurvedic physician at Gondal. He was soon appointed as "Rajavaidya" of that State. He established 'Rasa Shala Aushadhashrama' in 1910 for large scale manufacture of genuine Ayurvedic medicines. His scholarship in Rasa Shastra was excellent and the medicines prepared under his supervision in this Rasashala soon became very popular. More than all, his library of 17000 mss has been one of the greatest assets. Recently Govt. of India has decided to purchase this great treasure and establish a research centre in that Institute. During his leisure

hours he devoted himself for publishing books. He translated Rasaratna Samuchaya on Rasashastra and many other books into Gujarathi. He was elected as the president of the All India Ayurveda conference.¹ Recently he led a deputation of Ayurvedists to the late President Dr. Rajendraprasad and Prime Minister Nehru to plead for greater encouragement to Ayurveda.

Trikkovil Uzutra Warriar: (1855-1936) was the disciple of the famous Vaidya Thaikat Itterimooss. Earned great fame as an authority on Ayurveda. Served as the physician to the royal family of Cochin and professor at S.R.V. College Tripunithura, Kerala. Devoted much of his life for collection, editing and publication of ancient MSS on Ayurveda, in the course of which he published for the first time Vagbhata's Astanga Sangraha with Indu's commentary. He was awarded the title of 'Panditaraj'.

H.H. Kerala Varma (1864-1944) the Eliya Raja of Cochin was a great scholar in Sanskrit. He learnt Ayurveda from the famous Vishavaidya Tharna Namboodari, obtained proficiency in Toxicology and spent many years as physician and teacher of that subject. He translated two Sanskrit works on Vishatantra *Lakshanamritam* and *Narayaneeyam* into Malayalam. His other book was a compilation of *Vishachikitsa* from the earlier works of Charaka, Sushruta and Vagbhata. He established hospitals for treatment of poison all over Kerala state. He was

¹ Yoga Tarangini, Kayakalpa, Rudhi kanda-Vadhi kanda, Vyadhinigraha-prashasthosdi sangraha, Rasaprakasha Sudhakara, Rajyabhisheka padhati.

anointed Maharaja of Cochin in 1941. He gave great encouragement to the progress of Ayurveda in his state.

Swami Harisharanananda : is another famous vaidya of the present century. He is the founder of the Punjab Ayurvedic pharmacy, Amritsar which has earned a name as a reliable manufacturing house for Rasaoushadhas. Harisharanananda spent much time and money to evaluate the ancient mercurial processes scientifically and to establish their profundity. During the course of this work he made a thorough study of Rasa shastra and published books on the subject in Hindi.¹ Importance is attached to the history of Rasa shastra which he has tried to reconstruct².

D. Gopalacharlu : was born in the year 1872 at Masalipatam in Andhra. After his early Sanskrit education he joined the Sanskrit College at Mysore to study Ayurveda under the famous scholar Agaram Puttaswamy Pandit; and completing his studies he toured all over India. He served for several years as physician at the Theosophical Society Hospital, Bangalore. During the great epidemic of plague which raged Bangalore in 1898-99, his famous recipe 'Hemadi Panakam' saved innumerable victims from death. After some years he moved on to Madras as professor and physician to Sri Kanyakaparameswari Ayurveda College and Hospital. There he earned

¹ 1) Bhasma Vigyana-2 parts. 2) Koopipakva Rasayana.

² Introduction to Bhasma Vigyana.

great fame and soon established 'Ayurvedashramam' his own pharmacy for the manufacture of Ayurvedic medicines. He was for some time the Principal of Madras Ayurveda College. He did great service to the cause of Ayurveda, in recognition of which he received the title of 'Vaidyaratna' from the British Government. He was president of all India Ayurvedic Congress. He has written a few books, of which the Telugu translation of Madhava Nidana has won great popularity. He has donated large sums of money for propagation of Ayurveda and for establishment of the posts of professorship chairs of Ayurveda in Government Ayurvedic Colleges at Mysore and Madras.

Gangadhar Shastry Gune: was born in 1882 in Ahmadnagar District and got his early education at Kolhapur. He learnt Ayurveda from Vaidya Wakanker Shastry of Poona. He set up practice at Ahmadnagar and soon earned great fame as an efficient physician. He started "Ayurvedashrama Pharmacy" for the manufacture of genuine medicines. He also established an Ayurvedic College attached to this pharmacy and trained good number of Ayurvedic doctors. He was the editor of "Bhishag Vilasa" a monthly journal devoted to propagation of Ayurveda. He spared some time for writing books in Ayurveda and one of his best known works is "*Oushadhi Gunadharm Shastra*" in Marathi language.

Jogesh Chandra Ghosh: a renowned chemist of Bengal is known to us as the founder of Sadhana Oushadhalaya, Decca-one of the leading Ayurvedic

Pharmacies. While serving as chemistry professor at Bhagalpur College, he recognised the urgent need of improving the manufacture of Ayurvedic medicines on strict scientific lines leading towards standardisation. He has brought in many new techniques in preparation of medicines and it is this which made Sadhana Oushadhalaya the pioneering institution till to day.

Lakshmiramji Swami : (1873-1939) the famous Ayurvedist of Rajasthan was an alumnus of Ayurvedic College, Jaipur. He underwent higher training both in the theory and practice under the distinguished Kvj. Dwarakanathsen of Calcutta. Returning home, he served his alma-mater as professor for some years and later started his independent clinic. His erudition and efficient treatment made him so famous that he was appointed as court physician by the Maharajas of Jaipur and other neighbouring states. Many Europeans and British officers also became his patients. In 1951 he was elected as President of the All India Ayurvedic Conference and the very next year he was awarded the title of 'Vaidyaratna' by the British Government. In his later years he compiled all the efficacious recipes of his long experience and published them in a book form-*Siddha Bhaishajya Manimala*-which continues to be valuable guide to practioners of Ayurveda.

Girindranath Mukhyopadhyaya : was a great scholar of this century hailing from Bengal. After taking his B.A., he studied for M.D. of the Calcutta University and later joined the Calcutta Medical School as

lecturer in surgery. Greatly interested in the ancient medical heritage of India, he studied Ayurveda and prepared a research thesis on the "*Surgical Instruments of Ancient Hindus*" which won for him the Griffith prize of the Calcutta University for the year 1909. Encouraged by this, he wrote the "*History of Indian medicine*".—a biographical survey from the earliest times. This book was highly appreciated and the Griffith prize of 1911 was awarded to it. His third book "*Medicine in Atharva Veda*" was again the recipient of the same prize for the year 1923. All these were later published by Calcutta University. He was honoured with the membership of the Royal Asiatic Society of Bengal. As professor of biology in the Society for promotion of science, he did valuable service to that subject. He published a glossary of Indigenous medical plants. He devoted all his spare hours to write books. His first book "*The Surgical Instruments of the Hindus*" with detailed description, photographs and explanatory notes has remained unsurpassed till this day.

Sir Prafulla Chandra Ray : is an eminent scientist of India who has rendered yeoman service to Ayurveda also. He made an elaborate study of all the available literature on Rasa shastra, both published and unpublished. As a result of this ardent study emerged his book "*The History of Hindu Chemistry*" in two parts. It has gained the reputation of being the only work of its kind with good documentation. He next took up the work of editing and publishing authentic versions of great works of Rasa shastra.

Rasarnava was the first one in that series and many more followed in course of time.

Yadavaji Trivikramji Acharya : was born in 1881 at Porbandar in Gujerat. His forefathers were physicians to kings of Porbandar. After his early education in Sanskrit he, along with his father migrated to Bombay. His father gave him early lessons in Ayurveda and then made over to Gowrishankara Vaidya the famous Ayurvedic scholar of Rajasthan. Yadava Sharma quickly mastered Ayurveda both in theory and practice and came down to Bombay city, to start his career as an Ayurvedic physician in the tradition of his father. He became popular as a successful Ayurvedic physician and earned fame and money. His voracious thirst for knowledge necessitated a good collection of all ancient books on Ayurveda and during this ardent search he found great dearth of printed books and even the few, were full of mistakes. He felt the dire need for authentic editions of all the ancient works, printed neatly and sold cheap. With this idea in mind, he founded the 'Ayurveda Granthamala' trust and began collecting all available books both manuscript and printed, scrutinised them for grammatical and other literary interpolations, added bibliographical references, wrote introductions and published them in beautiful print through this trust. The then extant editions of Charaka and Sushruta, coming from Calcutta were difficult to read and had many printer's devils. Jadavaji's editions of these books were great advancement over them both in respect of good printing and

authenticity, with the result, they were quickly sold out and inspired him to publish many more such books. The number of books he published in this way are more than twenty five.¹

Apart from editing ancient texts he wrote elaborate and erudite introductions to the works of other scholars² and also many independent works, embodying his scholarship and practical experience.³

His hard work brought him honour and fame. He was elected President of Ayurveda Mahamandala, twice and appointed as adviser by many state governments. Many Universities conferred on him honorary degrees. In appreciation of his meritorious work, Government of India appointed him as the first Principal of the Post-graduate Training Centre in Ayurveda Jamnagar in 1956 but as misfortune had it, he breathed his last within a month of this appointment.

¹ Charaka Samhita with teekas of Chakrapani & Shivadasa Sen; Sushruta Samhita with teeka of Dalhana. Mahava Nidana, Raja Nighantu, Gada Nigraha (Ayurveda prakasha), Rasaprakhsha Sudhakara, Vaidya Manorama, Dhara Kalpa, Rasayana Khanda, Rasapaddhati Lohasarvasva, Rasasara, Rasasanketikalika, Rasakamadhenu Kshema Kutoohala, Siddhamantra, Vataghnatwadi Nirnaya, Trisathi, Anangaranga, Panchasayaka, Kandarpa Choodamani, Karma Kshetra, Oushadhi Sangraha.

² Rasayogasagara of Pt. Hariprapannaji, Kashyapa Samhita of Pt. Hemaraja Sharma. Gujarathi translation of Pratyaksha Shareera of Gananath Sen, by B. A. Pathak and many more.

³ Bharateeya Rasa Shastra (Hindi), Siddhayoga Sangraha, Dravyaguna Vigyanana, 3 parts.

A bright luminary of our times, he has placed every Ayurvedist of India in great debt of gratitude to him by providing authentic editions of Ayurvedic treatises.

A Lakshmipathi : was born in 1880 in West Godavari District of Andhra. He obtained his B.A. degree from the Presidency College, Madras. He worked for some time as an apprentice to Pandit Sitaramah, a famous physician of Rajamahendry, who infused in him a desire to study Ayurveda. Shortly after words, he joined the Madras Medical College, where he took his MBChB degree in due course. Soon after, he started his career as an eye surgeon and later joined the Madras Ayurvedic College as professor of surgery. This gave him an opportunity to pursue his studies in Ayurveda under the able guidance of the eminent Ayurvedic scholar, Pandit D. Gopalacharlu the founder-principal of that institution. Very soon he became proficient in Ayurveda and was greatly impressed by rich principles of personal hygiene and therapeutics detailed therein. He was, from his boy-hood, much interested in physical culture and with this new knowledge of swasthavrita he began to propagate the usefulness of 'Vyayama' giving personal demonstrations. He was greatly attracted by the campaign for providing cheap and quick medical relief and adherence to nature cure which Mahatma Gandhi was pursuing in those days. He joined that movement wholeheartedly and began to popularise methods for a healthy living. He wrote many booklets on personal

hygiene, (physical exercise, oil bath and massage, food and other habits) and many on home remedies. He organised a volunteer corps called 'Arogyasena' within the Indian National Congress. After the demise of Pandit Gopalacharlu he was appointed as principal of the Ayurvedic College, which post he filled with distinction. By working zealously for the all round improvement of the institution he laid a firm foundation for its continued progress. After five years of service, he retired from this post and then started the Andhra Ayurvedic Pharmacy at Madras, equipping it with modern machinery. He also established a charitable dispensary and a health resort Arogyashrama at Avadi, as part of the Pharmacy.

Being a prolific writer since his early life, he could not keep his leisure hours free. He undertook the stupendous task of presenting the knowledge of Ayurveda to the modern world. He published more than ten books in series in english, aptly naming it "*The Ayurveda Siksha Series.*" The first two volumes deal with historical and philosophical background very necessary for understanding of Ayurveda. Basic principles of Ayurveda, anatomy, physiology, pathology, materia medica, therapeutics in all its branches all followed one after the other. He presented the first set of these books to Gandhiji on the occasion of his 75th birthday in 1944. These books won for him both national and international reputation. He was an active founder member of the All India Ayurveda Congress and twice held its presidentship.

In the last years of his life, he served as the principal of the Govt. Ayurvedic College at Trivandram. He improved the institution in many aspects and took leave of the exacting work due to his advanced age. He was a member of the Chopra committee constituted by the Govt. of India. Mention may be made here of his wife Smt. Rukmini Lakshmipathy who was for some time the popular Health Minister of Madras. She implemented many schemes of her husband to improve the status of Indian Medicine in that state, both in the field of education and practice.

Lakshmipathi's greatest contribution to Ayurveda is undoubtedly his books which are running into new editions even now. Lakshmipathi breathed his last in 1959.

Yogendranath Sen : (b. 1871-1918) son of Dwarakanathsen, obtained M.A., degree from Calcutta University. Studied Ayurveda under the tutelage of his father. Established an Ayurveda pathashala and a hospital at Calcutta. He is the author of a commentary on Charaka samhita-*Charakopaskara* by by name which has remained incomplete probably due to his death.

Gananath Sen : son of Visvanath Sen was born in 1877 at Banaras and later migrated to Calcutta. His early boyhood was entirely devoted to oriental studies with the result that he gained mastery over Sanskrit literature. He got his M.A., degree in Sanskrit from the Calcutta University in 1890. Later he studied under the famous Ayurvedic scholar Kaliprasanna Sen and qualified as a physician at the

age of 20. His thirst for knowledge made him a student of the Calcutta Medical School in 1898. He secured the diploma L.M.S., with distinction. He began his career as a private practitioner practising Ayurveda for treatment of diseases and making use of his modern knowledge to substantiate Ayurvedic theories. He earned great popularity as an efficient physician and erudite scholar. He amassed considerable wealth but retaining his simplicity, he spent much money for the propagation of Ayurveda. In 1932, he founded the Viswanatha Ayurveda Maha Vidyalaya at Calcutta in memory of his father, equipped it with all facilities of both men and material with the result that the institution attracted a large number of students from all parts of India and even from other eastern countries. His fame as an authority on Ayurveda made him an active member of advisory boards of Ayurveda of many provinces of India. His service was requisitioned by the authorities of Banaras Hindu University to set up an Ayurvedic College. As dean of this faculty, Gananath Sen organised the college with all the laboratories, museums, herbarium and also a well equipped hospital. From 1929 to 1932 he served the Jamini Bhushan Roy's Astanga Ayurveda College, Calcutta, as its Principal and steered it to greater fame. He received the two coveted titles for meritorious scholarship, Mahamahopadhyaya and Saraswati. He was elected President of all India Ayurveda Conference thrice; and also of many other state level conferences. His expert advice was being sought by all the states on matters of Ayurveda. With all these